

**DETAILED ACTION**

***Election/Restrictions***

Applicant's election of Group II in the reply filed on 4/9/2009 is acknowledged. Because Applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

***Priority***

This application, filed 1/21/2005, is a national stage entry of PCT/US03/02545, filed 1/29/2003, and the application also claims benefit of PCT/US02/23184, filed 7/23/2002

However, PCT/US02/23184, upon which priority is claimed, fails to provide adequate support under 35 U.S.C. 112 for instant claims 12-28 of this application since it is not seen to disclose the following in the instant independent claims: "a first antimicrobial agent in said dispersion, said antimicrobial agent being isothiazolone based". While the priority document discloses antimicrobial agents, it does not disclose isothiazolone based antimicrobial agents. Thus, the filing date of the instant claims is deemed to be the filing date of PCT/US03/02545, 1/29/2003. If Applicant disagrees, Applicant should present a detailed analysis as to why the claimed subject matter has clear support in the earlier priority applications. Applicant is reminded that such priority for the instant limitations requires written description and enablement under 35 U.S.C. § 112, first paragraph.

### ***Claim Objections***

Claims 16 and 25 are objected to because of the following informalities: “170 °” appears to be a typographic error. It should read “170 °C”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112, First Paragraph***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 12-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. None of the “isothiazolone based” antimicrobial agents meet the written description provision of 35 USC § 112, first paragraph, due to lacking chemical structural information for what they are as their chemical structures are highly variant and encompass a myriad of possibilities. The specification provides insufficient written description to support the genus of isothiazolone based antimicrobial agents, since there is no description of the structural relationship of these compounds provided in the specification and Applicant has not provided a description as to how the base molecule may be changed while remaining a

“isothiazolone based” compound. The appearance of mere indistinct words (here the words “isothiazolone based”) in a specification or a claim, even an original claim, does not necessarily satisfy the written description requirement. The disclosure must allow one skilled in the art to visualize or recognize the identity of the subject matter purportedly described. Univ. of Rochester v. G.D. Searle, 69 USPQ2d 1886, 1892 (CAFC 2004).

***Claim Rejections - 35 USC § 112, Second Paragraph***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 12-28 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 12 and 20 recite “isothiazolone based” antimicrobial agents. The term “isothiazolone based” renders the claims indefinite because it is unclear how far removed the “isothiazolone based” compound can be from the parent compound without being an entirely different compound.

Claims 12 and 15 recite “high density core fiberboard”. The term "high density" is a relative term which renders the claims indefinite. The term "high density" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 14 recites “the decorative laminate of claim 12, wherein the second antimicrobial agent is one of...” As claim 12 does not disclose a second antimicrobial agent, there is insufficient antecedent basis for the limitation. Claim 23, which depends from claim 20, has a similar recitation and is indefinite for the same reason.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 12-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6248342 ('342) in view of US 20030065192 ('192). '342 discloses a decorative laminate having durable antimicrobial properties comprising:

- An overlay sheet impregnated with a melamine resin including a dispersion;
- An inorganic antibiotic metal agent in said dispersion,
- A printed paper sheet impregnated with a melamine formaldehyde; and
- A high density core fiberboard impregnated with a phenolic resin or a melamine resin (a substrate) (see col 1, lines 58-67; col 2, lines 56-67; Figure 1).

The inorganic antibiotic metal agent may be silver, copper or zinc zeolite (see col 5, lines 17-42). The inorganic antibiotic metal agent may be present in the laminate from about 0.01 to 20 wt% (see col 6, line 66 to col 7, line 4). This compound corresponds to Applicant's "second antimicrobial agent" (see instant claims 13-14 and 22-23). There may be multiple layers of fiberboard (see col 2, line 65), which satisfies instant claims 15 and 24. The laminate is cured in a press at a pressure in the range of 3 to 30 MPa (430 to 4300 psi) and at a temperature in the range of 50 to 500 °C, preferably 100 to 250 °C. The laminate may be used as an eating surface (tabletop), which satisfies instant claim 21. '342 fails to teach incorporation of an isothiazolone based antimicrobial agent. '342 further fails to teach the pressure ranges, temperature ranges, and weight percentages disclosed in instant claims 16-19 and 25-28.

'192 discloses 5-substituted 3-isothiazolones (isothiazolone based compounds) and their role as antimicrobial agents (see paragraph 9). These compounds may be used in a variety of textiles, including laminated beams (see paragraph 21).

It would have been obvious to one of ordinary skill in the art to incorporate a second, isothiazolone based antimicrobial agent into the laminate of '342, to improve the antimicrobial efficacy of the composition. Both the inorganic antibiotic metal agents disclosed by '342 and isothiazolone based antimicrobial agents are used for the same purpose (as antimicrobial agents), and it would be obvious to combine the two to improve the antimicrobial efficacy of the composition. "It is obvious to combine individual compositions taught to have the same utility to form a new composition for the very same purpose. In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)." MPEP § 2144.06. It would be further obvious to optimize the curing pressure, curing temperature, and weight percent of the antimicrobial agent to improve the structural integrity and antimicrobial efficacy of the composition. In this way, one would find Applicant's claimed values through routine experimentation. The rationale for finding these values is that the pressure range taught by '342 of 430 to 4300 psi fully encompasses Applicant's range of about 1000 to about 1500 psi, the temperature range taught by '342 of 100 to 250 °C fully encompasses Applicant's ranges of about 170 to about 210 °C and about 190 °C, and the antimicrobial weight percentage range taught by '342 of 0.01 to 20 wt% fully encompasses Applicant's claimed ranges of about 0.1 to about 5 wt% and about 0.3 to about 1.0 wt%. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or

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workable ranges by routine experimentation.' In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)" MPEP § 2144.05, II.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAUL DICKINSON whose telephone number is (571)270-3499. The examiner can normally be reached on Mon-Thurs 9:00am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit 1618

Paul Dickinson  
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